

## A Case Report of Diffuse Pigmented Villonodular Synovitis Treated by Fire-needle

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Pigmented villonodular synovitis, a group of diseases caused by proliferation of lining tissues in joint and tendon sheath with its etiology unknown, manifested as brownish red protrusive synovial villus and nodular proliferative benign neoplasm, can erode joint cartilage and bone tissues. It is divided into limited type and nodular type with its incidence at 1.8 per million of population. Diffuse pigmented villonodular synovitis mainly affects knee joints and is rarely seen in other joints. It is occult in onset and occurs in simple joint with joint swell and discomfort. Some patients may have history of mild trauma, locking and weakness of joint. Most patients have synovial mass and tenderness around patellar joint, limited function and effusion in the affected joint. Dark-colored hemic synovial fluid found in joint puncture on more than half of patients is an important diagnostic clue. Hemogram, erythrocyte sedimentation rate and other laboratory findings show normal.

Pigmented villonodular synovitis is a rarely seen disease at acupuncture clinics. The author has no ripe therapeutic experience on it. By chance encountered 1 case of this disease on June 18, 2006, the author used a comprehensive therapy with fire-needle puncture as main method to treat the patient. He was cured. The report is as follows.

A male patient, aged 64, a retired teacher, was carried by his family members to my hospital. He told me that he had swelling pain in the upper part of his left knee for 3 days and it was aggravated on that day, and that he had no history of rheumatism and

rheumatoid disease. Check-up showed swelling of left quadriceps femoris muscle, waving sensation in palpation, obvious tenderness and slightly higher temperature in the skin. No abnormalities were seen in examinations of X-ray, hemogram and erythrocyte sedimentation rate. Dark-colored hemic synovial fluid was found in puncture of suprapatellar bursa. The diagnosis was diffuse pigmented villonodular synovitis. The treatment was given in the following way:

About 300 ml hemic synovial fluid was extracted from suprapatellar bursa with a 50 ml syringe, Xuehai (SP 10), Liangqiu (ST 34), Yingshi (ST 33) and Futu (ST 32) of the affected side were punctured deeply with the medium sized fire needles, and then bandaged. The patient was asked to stay in bed and orally take San Qi (三七 Radix Notoginseng) Powder, 3–5 g each time, 3 times a day after meals. Fire-needle puncture was performed once every 3 days for 10 times, during which 100 ml and 30 ml hemic synovial fluid were extracted respectively. This treatment process was one month and the patient was basically cured. Because the patient was eager to do physical exercise, his illness relapsed but milder than before. More than 1 month of continuous treatment with fire-needle puncture once every 5 days cured him. No relapse was found so far in follow-up visits.

Pigmented villonodular synovitis is mainly treated with surgical operation. However, the comprehensive therapy with fire-needle puncture as the main method also obtained satisfying effect on the patient. What I have learned from the treatment is summarized as follows:

This disease belongs to blood stasis syndrome in TCM. Blood stasis obstructing in collaterals is the cause of repeated bleeding.

Modern medicine also believes that repeated bleeding around joints easily erodes synovial tissue to cause pigmented villonodular synovitis. Therefore, it is urgent to treat it with removing blood stasis. In this case, puncturing and blood-letting can not only remove blood stasis but also be convenient for compression bandage and nursing, and enriched TCM blood-letting therapy. Puncture with fire-needle is a key to treat the root cause. With the effect of promoting circulation of *qi* and blood, warming channels and clearing collaterals, puncture with fire-needle gives warm stimulation and proper burning to points, focusing on regulating the functions of internal *zang-fu* organs.

Deeply puncturing at Xuehai (SP 10), an important

point of the spleen channel and the affected part of this disease, with fire-needle, produces lasting effect of warming channels, promoting blood circulation and stopping bleeding, thus strengthening the function of the spleen to control blood.

Liangqiu (ST 34), Yingshi (ST 33) and Futu (ST 32), belonging to the stomach channel, are used together with Xuehai (SP 10) for promoting blood circulation, removing blood stasis, and enhancing recovery ability.

San Qi (三七 Radix Notoginseng) has dual effect of promoting blood circulation and stopping bleeding.

Clinical practice has proved that the comprehensive therapy with fire-needle puncture as the main method can cure pigmented villonodular synovitis, providing an effective measure for treating synovial diseases.

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